

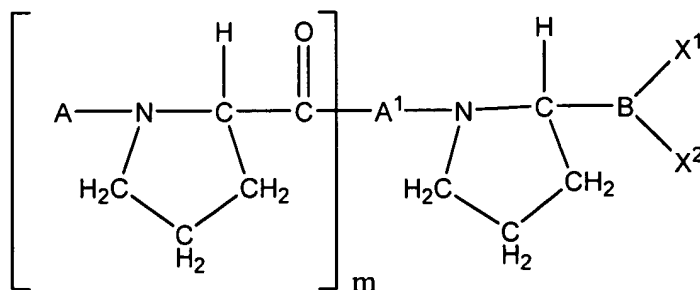
## **Amendment to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims

1-28. (Cancelled)

29. (Currently Amended) A compound ~~[[having]]~~ of the structure



wherein m is an integer between 1 and 10, inclusive; A and A<sup>1</sup> are L-amino acid residues such that the A in each repeating bracketed unit can be a different amino acid residue; the C bonded to B is in the L-configuration; the bonds between A and N, A<sup>1</sup> and C, and [[between]] A<sup>1</sup> and N are peptide bonds; and each X<sup>1</sup> and X<sup>2</sup> is, independently, a hydroxyl group or a group capable of being hydrolyzed to a hydroxyl group at physiological pH.

30. (Currently Amended) The compound of claim 29, wherein A and A<sup>1</sup> are, independently, L-proline or L-alanine residues.

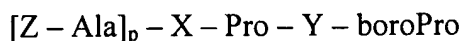
31. (Previously Presented) The compound of claim 29, wherein m is 1 or 2.

32. (Previously Presented) The compound of claim 29, wherein X<sup>1</sup> and X<sup>2</sup> are hydroxyl groups.

33. (Previously Presented) The compound of claim 29, wherein the compound has a binding or dissociation constant to DP-IV of at least  $10^{-9}$  M,  $10^{-8}$  M, or  $10^{-7}$  M.

34. (Currently Amended) [[The compound of claim 29, further comprising]] A pharmaceutical composition comprising the compound of claim 29 and a pharmaceutically acceptable carrier or diluent.

35. (Currently Amended) A compound [[having]] of the structure:

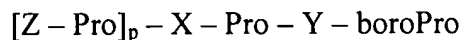


wherein each Y, X and Z, independently, is any amino acid, and  
wherein p is 0, 1 or more than 1.

36. (Previously Presented) The compound of claim 35, wherein Z is proline.

37. (Previously Presented) The compound of claim 35, wherein p is 1.

38. (Currently Amended) A compound [[having]] of the structure:



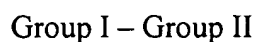
wherein each Y, X and Z, independently, is any amino acid, and  
wherein p is 0, 1 or more than 1.

39. (Previously Presented) The compound of claim 38, wherein Z is proline.

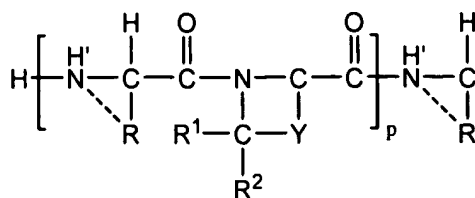
40. (Previously Presented) The compound of claim 38, wherein p is 0-3.

41. (Previously Presented) The compound of claim 38, wherein p is 1.

42. (Currently Amended) A compound [[having]] of the structure:



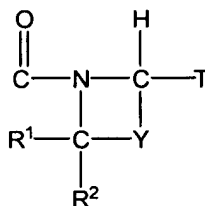
wherein Group I is



wherein H represents a hydrogen; C represents a carbon; O represents an oxygen; N represents a nitrogen; each R, independently, is chosen from the group consisting of the R groups of an amino acid; each broken line, independently, represents a bond [[to an H]] between N and the R group or absence of a bond, and when the broken line represents a bond, H' is absent [[a bond to one R group, and each H' represents that bond or a hydrogen]]; p is an integer between [[0]] 1 and 4 inclusive;

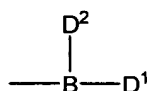
and Group II is selected from the group consisting of

(i)



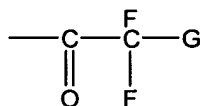
wherein T is selected from a group consisting of a group of the formula

(1)



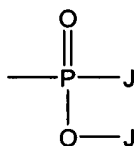
wherein each D<sup>1</sup> and D<sup>2</sup>, independently, is a hydroxyl group or a group which is capable of being hydrolysed to a hydroxyl group in aqueous solution at physiological pH;

(2) a group of the formula

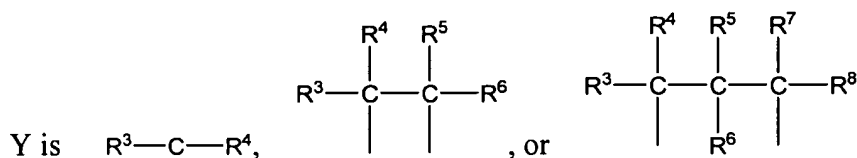


wherein G is either H, fluorine (F) or an alkyl group containing 1 to 20 carbon atoms and optional heteroatoms which can be N, S (sulfur) or O; and

(3) a phosphonate group of the formula



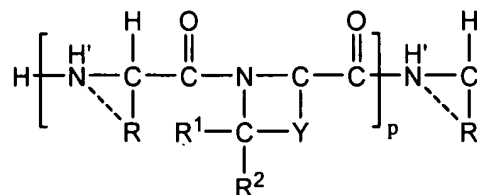
wherein each J, independently, is O-alkyl, N-alkyl or alkyl comprising 1-20 carbon atoms and optionally heteroatoms which can be N, S or O; and



wherein each  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$ ,  $\text{R}^6$ ,  $\text{R}^7$ , and  $\text{R}^8$  separately is a group which does not significantly interfere with site specific recognition of the inhibitory compound by DP-IV and allows a complex to be formed with DP-IV.

43. (Currently Amended) The [[A]] compound of claim 42, wherein Group I is

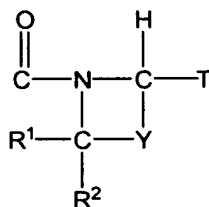
(1)



wherein H represents a hydrogen; C represents a carbon; O represents an oxygen; N represents a nitrogen; each R, independently, is chosen from the group consisting of the R groups of an amino acid; each broken line, independently, represents a bond [[to an H]] between N and the R group or absence of a bond, and when the broken line represents a bond, H' is absent [[a bond to one R group, and each H' represents that bond or a hydrogen]]; p is an integer between [[0]] 1 and 4 inclusive;

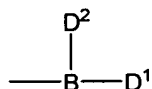
and Group II is

(i)



wherein T is

(1)



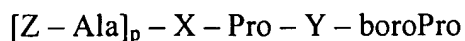
wherein each  $\text{D}^1$  and  $\text{D}^2$ , independently, is a hydroxyl group or a group which is capable of being hydrolysed to a hydroxyl group in aqueous solution at physiological pH; and

Y is  $\text{R}^3-\text{C}-\text{R}^4$ ,

wherein each  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ , and  $\text{R}^4$  separately is a group which does not significantly interfere with site specific recognition of the inhibitory compound by DP-IV and allows a complex to be formed with DP-IV.

44. (Withdrawn) A method for inhibiting DP-IV activity in a mammal comprising administering to a mammal in need thereof an effective amount of the compound of claim 29, 35, 38 or 42.

45. (New) A compound having the structure:

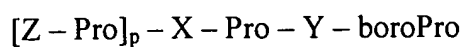


wherein each Y, X and Z, independently, is any amino acid, and

wherein p is 1.

46. (New) The compound of claim 45, wherein Z is proline.

47. (New) A compound having the structure:



wherein each Y, X and Z, independently, is any amino acid, and  
wherein p is 1, 2 or 3.

48. (Previously Presented) The compound of claim 47, wherein Z is proline.
49. (Previously Presented) The compound of claim 47, wherein p is 1.
50. (Previously Presented) The compound of claim 47, wherein p is 2.
51. (Previously Presented) The compound of claim 47, wherein p is 3.